Receipt date: 01/03/2007 JAN 0 3 2007

STATEMENT BY APPLICANT

(SUBSTITUTE FOR FORM 1449A/PTO)

U.S. DEPARTMENT OF COMMUNICATION TRANSPORTED FOR COMMUNICATION DISCLOSURE

APPLICATION NUMBER 10/589599 GAYL
FILING DATE AUGUST 16, 2006
FIRST NAMED INVESTOR EDWARD NELSON FULLER
ART UNIT TBA
EXAMINER NAME TBA

12-4872

SHEET 1 OF 5

ATTORNEY DOCKET NUMBER

			U.S. PAIL	ENT DOCUMENTS	
EXAMINER	CITE	DOCMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR	PAGES, COLUMNS, LINES WHERE RELEVANT
INITIAL	No.1	NUMBER-KIND CODE 2 (IF KNOWN)	MM-DD-YYYY	APPLICATE OF CITED DOCUMBNET	PASSAGES OR RELEVANT FIGURES APPEAR
		0,886,045	04-28-1908	EHRLICH ET AL.	
		1,886,205	11-01-1932	LYFORD	
		1,926,031	09-12-1933	BOYNTON	
		2,412,205	12-10-1946	Соок	
	_	2,504,055	04-11-1950	THOMAS	
	-	2.840,107	06-24-1958	CAMPBELL	
	\vdash	2,875,779	03-03-1959	CAMPBELL	
	+	3,031,747	05-01-1962	GREEN	
		3,729,807	05-01-1973	FUJIWARA	
	+	3,747,628	07-24-1973	HOLSTER ET AL.	
	+-	3,860,949	01-14-1975	STOECKERT ET AL.	
	+-	4,005,454	01-25-1977	FROLOFF ET AL.	
	\vdash	4,019,388	04-26-1977	HALL, II ET AL.	
	+-	4,023,725	05-17-1977	IVETT ET AL.	
	+-	4,152,540	05-01-1979	DUNCAN ET AL.	
	+-	4,181,249	01-01-1980	PETERSON ET AL.	
	+-	4,298,023	11-03-1981	McGinnis	
	+-	4,341,816	07-27-1982	LAUTERBACH ET AL.	
	+-	4,434,813	03-06-1984	Mon	
	+	4,581,624	04-08-1986	O'CONNOR	
	+-	4,628,576	12-16-1986	GIACHINO ET AL.	
	+	4,647,013	03-03-1987		
	+-	4,661,835	04-28-1987	GADEMANN ET AL.	
	+-	4,772,935		LAWLER ET AL.	
-	+-	4,821,997	04-18-1989	ZDEBLICK	
\vdash	+	4,824,073	04-25-1989	ZDEBLICK	
-	+	4,826,131	05-02-1989	MIKKOR	
-	+-	4,828,184	05-09-1989	GARDNER ET AL.	
-	+	4,869,282	09-26-1989	SITTLER ET AL.	
-	+-	4,938,742			
<u></u>	+	4,943,032			
-	+-	4,959,581			
\vdash	+-	4,966,646		ZDEBLICK	
—	+	5,029,805			
—	+-	5,037,778		STARK ET AL.	
-	+-	5,050,838		BEATTY ET AL.	
-	+	5.054.522			

EXAMINER

/Andrew Rost/

DATE CONSIDERED

02/12/2011

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(SUBSTITUTE FOR FORM 1449A/PTO)	APPLICATION NUMBER	10/589599
U.S. DEPARTMENT OF COMMERCE	FILING DATE	August 16, 2006
PATENT AND TRADEMARK OFFICE	FIRST NAMED INVENTOR	EDWARD NELSON FULLER
INFORMATION DISCLOSURE	ART UNIT	TBA
STATEMENT BY APPLICANT	EXAMINER NAME	TBA
SHEET 2 OF 5	ATTORNEY DOCKET NUMBER	1-24872

SHEET 2 OF 5

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XAMINER	CITE	DOCMENT NUMBER	PUBLICATION DATE		NAME OF PAYENTEE OR		MNS, LINES WHERE RELEVANT
ITIAL	No.1	Nummers-Kind Code 1 (gracowe)	MM-DD-YYYY	APPLI	CATE OF CITED DOCUMENET	PASSAGES OF	RELEVANT FIGURES APPEAR
_		5,058,856	10-22-1991	GORDON E	T AL.		
	\vdash	5,061,914	10-29-1991	BUSCH ET	AL		
		5.064,165	11-12-1991	JERMAN			
	 	5,065,978	11-19-1991	ALBARDA E	T AL.		
	 	5,066,533	11-19-1991	AMERICA E	T AL.		
		5,069,419	12-03-1991	JERMAN			
		5,074,629	12-24-1991	ZDEBLICK			
		5,082,242	01-21-1992	BONNE ET	AL		
	1	5,096,643	03-17-1992	KOWANZ E	T AL.		
	1	5,116,457	05-26-1992	JERMAN			
		5,131,729	07-21-1992	WETZEL			
	_	5,133,379	07-28-1992	JACOBSEN	ET AL.		
	+	5,142,781	09-01-1992	METTNER	ET AL.		
	_	5,161,774	11-10-1992	ENGELSD	ORF ET AL.		
	_	5,169,472	12-08-1992	GOEBEL			
	t	5,176,358	01-05-1993	BONNE ET	AL		
	+	5,177,579	01-05-1993	JERMAN			
	+	5,178,190	01-12-1993	METTNER			
	+-	5,179,499	01-12-1993	MACDON	ALD ET AL.		
		5,180,623	01-19-1993	OHNSTEIN	·		
		5,197,517	03-30-1993	PERERA			
	+-	5,209,118		JERMAN			
	+-	5,215,244		BUCHHOL	Z ET AL.		
	+-	5,216,273		DOERING	ET AL.		
	+-	5,217,283		WATANA	BE		
	+	5,238,223		METTNER	ET AL.		
	+	5,244,537		OHNSTEI	Ν		
	+-	5,267,589		WATANA	3E		
	+-	5,271,431		METTNER	RETAL.		
		5,271,597		JERMAN			
	+-	5,309,943		STEVENS	ON ET AL.		*
	+-	5,325,880		JOHNSON	I ET AL.		
	+	5,333,831			T AL.		
	+	5,336,062					
	+-	5,355,712		PETERSE	N ET AL.		
		5,368,704			T AL.		
	+-	5,375,919		FURUHA	SHI		
EXAMI	NER	/Andrew Rost	1		DATE CONSIDERED	02/12/2011	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov.or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emparor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98 The information is required to obtain or retain a benefit by the public which is to 6is (and by the USPTO to process) an application. Confidentiality is governed by 38 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chef Information Officer, U.S. Patient and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22315-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

/Andrew Rost/

10/589599 APPLICATION NUMBER (SUBSTITUTE FOR FORM 1449A/PTO) August 16, 2006 U.S. DEPARTMENT OF COMMERCE FILING DATE EDWARD NELSON FULLER PATENT AND TRADEMARK OFFICE FIRST NAMED INVENTOR INFORMATION DISCLOSURE ART UNIT TBA STATEMENT BY APPLICANT EXAMINER NAME 1-24872 ATTORNEY DOCKET NUMBER

SHEET 3 OF 5

	_		PUBLICATION DATE	NAME OF PATENTEE OR	PAGES, COLUMNS, LINES WHERE RELEVAN
XAMINER	CITE No. 1	DOCMENT NUMBER	MM-DD-YYYY	APPLICATE OF CITED DOCUMBNET	PASSAGES OR RELEVANT FIGURES APPEAR
IITIAL	NO.	NUMBER-KIND CODE 2 (IF EXXVIVI)	03-28-1995	GSCHWENDTNER ET AL.	
	-	5,400,824 5,417,235	05-23-1995	WISE ET AL.	
		5,445,185	08-29-1995	WATANABE ET AL.	
	-	5,458,405	10-17-1995	WATANABE	
		5,553,790	09-10-1996	FINDLER ET AL.	
	├	5,566,703	10-22-1996	WATANABE ET AL.	
	-	5,577,533	11-26-1996	COOK, JR.	
	├	5,577,533	03-18-1997	WEGENG ET AL.	
	├	5,785,295	07-28-1998	TSAI	
		5,765,295	09-22-1998	CARR	
_	-	5,838,351	11-17-1998	WEBER	
	+-	5,848,605	12-15-1998	BAILEY ET AL.	
	-	5,873,385	02-23-1999	BLOOM ET AL.	
	-	5,909,078	06-01-1999	WOOD ET AL.	
	+	5,926,955	07-27-1999	KOBER	
	+	5,941,608	08-24-1999	CAMPAU ET AL.	
	 	5,954,079	09-21-1999	BARTH ET AL.	
	+-	5,955,817	09-21-1999	DHULER ET AL.	
	+-	5,970,998	10-26-1999	TALBOT ET AL.	
	+-	5,994,816	11-30-1999	DHULER ET AL.	
	+-	6.019.437	02-01-2000		
	+-	6,023,121	02-08-2000		
	+-	6,038,928	03-21-2000		
	+-	6,105,737	08-22-2000		
	+-	6,114,794	09-05-2000		
	+-	6,171,972	01-09-2001		
	+-	6,279,606	08-28-2001		
	+-	6,390,782	05-21-2002		
	+-	6,494,804	12-17-2002		
	+-	6,505,811	01-14-2003		
	+	6,523,560	02-25-2003	WILLIAMS ET AL.	
	+-	6,533,366			
	+-	6,540,203			
	+-	6,581,640		BARRON	
	+	6,637,722			
	+	6,761,420			
	+	6.845,962		BARRON ET AL.	

EXAMINER /Andrew Rost/

*EXAMINER. Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Moplicant's unique citesion designation number (orsional). See Kinds Codes of USPTO Patient Documents at www usplo.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (NVIPO Standard ST.3). For Japanese patent documents, the indication of the year of the regin of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is etlached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the inclividual case. Any comments on the amount of time you require to complete this form endor suggestions for reducing this burden, should be sent to the Chief information Officer, U.S. Petent and Trademark Officer, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Receipt date: 01/03/2007 ртф**95999999** - GAU: 3753 10/589599 APPLICATION NUMBER (SUBSTITUTE FOR FORM 1449A/PTO) August 16, 2006 FILING DATE

U.S. DEPARTMENT OF COMMERCE EDWARD NELSON FULLER PATENT AND TRADEMARK OFFICE FIRST NAMED INVENTOR TBA INFORMATION DISCLOSURE ART UNIT TBA STATEMENT BY APPLICANT EXAMINER NAME 1-24872 ATTORNEY DOCKET NUMBER

SHEET 4 OF 5

LIC DATENT DOCUMENTS

EXAMINER CIT	CITE	DOCMENT NUMBER NUMBER-KIND CODE ² (IF KNOWN)	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICATE OF CITED DOCUMENT	PAGES, COLUMNS, LINES WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR
INITIAL	No.1				
		2002/0174891	11-28-2002	MALUF ET AL.	
		2003/0092526	05-15-2003	HUNNICUTT ET AL.	
		2003/0098612	05-29-2003	MALUF ET AL.	
		2006/0218953	10-05-2006	HIROTA	
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				NAME OF PATENTEE OR	PAGES, COLUMNS, LINES WHERE RELEVANT
EXAMINER	CITE	FOREIGN PATENT DOCUMENT	PUBLICATION DATE	APPLICATE OF CITED DOCUMBNET	PASSAGES OR RELEVANT FIGURES APPEAR
INITIAL	No. 1	COUNTRY CODE NUMBER KIND	MM-DD-YYYY	APPLICATE OF CITED DOCUMENET	PASSAGES OF RELEVANT FIGURES IN THE
		CODE		LIGHTIN ON INII	
		DE2215526	10-04-1973	LICENTIA GMBH	
				TOKYO SHIBAURA ELECTRIC	
		DE2930779	02-07-1980	CO	
		DE3401404	07-25-1985	BOSCH GMBH ROBERT (DE)	
		DE4101575	07-23-1992	BOSCH GMBH ROBERT (DE)	
		DE4417251	11-23-1995	BOSCH GMBH ROBERT (DE)	
		DE4422942	01-04-1996	BOSCH GMBH ROBERT (DE)	
		EP250948	01-07-1988	FRAUNHOFER GES FORSCHUNG (DE)	
		EP261972	03-30-1988	UNIV LELAND STANFORD JUNIOR (US)	
		GB2238267	05-29-1991	STC PLC (GB)	
		WO00/14415	03-16-2000	LUCAS NOVASENSOR (US) et al.	
	1	WQ99/16096	04-01-1999	MCNC et al.	
EXAMINE	R	/Andrew Rost/		DATE CONSIDERED 02/12/201	11

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Receipt date: 01/03/2007

(SUBSTITUTE FOR FORM 1449B/PTO)

U.S. DEPARTMENT OF COMMERCE

PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE

/Andrew Rost/

STATEMENT BY APPLICANT
SHEET 5 OF 5

APPLICATION NUMBER 10/589599
FILING DATE AUGUST 16, 2006
FIRIST NAMED INVENTOR EDWARD NELSON FULLER
ART UNIT TBA
EXAMINER NAME TBA
TTORNEY DOCKET NUMBER 1 1-24872

SHEET J OF J		ATTORIES DOCALS TO SEE				
		NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				
		"A Silicon Microvalve For The Proportional Control Of Fluids" by K.R. Williams, N.I. Maluf, E.N. Fuller, R.J. Barron, D.P. Jaeggi, and B.P. van Drieënhuizen, TRANSDUCERS '99, Proc. 10th International Conference on Solid State Sensors and Actuators, held June 7-10, 1999, Sendai, JAPAN, pp. 18-21.				
		"Process for in-plane and out-of-plane single-crystal-silicon thermal microactuators"; J. Mark Noworolski, et al.; Sensors and Actuators A 55 (1996); pp. 65-69.				
		Ayón et al., "Etching Characterístics and Profile Control in a Time Multiplexed ICP Etcher," Proc. Of Solid State Sensor and Actuator Workshop Technical Digest, Hilton Head SC, (June 1998) 41-44.				
		Bartha et al., "Low Temperature Etching of Si in High Density Plasma Using SF6/O2," Microelectronic Engineering, Elsevier Science B.V., vol. 27, (1995) 453-456.				
		Fung et al., "Deep Etching of Silicon Using Plasma" Proc. Of the Workshop on Micromachining and Micropackaging of Transducers, (Nov. 7-8, 1984) pp. 159-164.				
		IEEE Technical Digest entitled "Compliant Electro-thermal Microactuators", J. Jonsmann, O. Sigmund, S. Bouwstra, Twelfth IEEE International Conference on Micro Electro Mechanical Systems held January 17-21, 1999, Orlando, Florida, pp. 588 - 593, IEEE Catalog Number: 99CH36291C.				
		Klaassen et al., "Silicon Fusion Bonding and Deep Reactive Ion Etching; A New Technology for Microstructures," Proc., Transducers 95 Stockholm Sweden, (1995) 556-559.				
		Linder et al., "Deep Dry Etching Techniques as a New IC Compatible Tool for Sillcon Micromachining," Proc., Transducers, vol. 91, (Jun. 1991) pp. 524-527.				
		Petersen et al. "Surfaced Micromachined Structures Fabricated with Silicon Fusion Bonding" Proc., Transducers 91, (Jun. 1992) pp. 397-399.				
		Yunkin et al., "Highly Anisotropic Selective Reactive Ion Etching of Deep Trenches in Silicon," Microelectronic Enginineering, Elsevier Science B.V., vol. 23, (1994) pp. 373-376.				
EXAMINER		Irew Rost/ Date considered 02/12/2011				

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

Applicant's unique citation designation number (options). *Applicant is to place a check mark here if English language Translation is staticided. This collection of information is required by 37 CFR 19.8. The information is required to obtain or retail to be benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14.

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